Catoosa / Emory River

Conservation Opportunity Area

The Catoosa / Emory River Conservation Opportunity Area (COA) lies within the Cumberland Plateau and Mountains of Tennessee, boasting a variety of habitats, mostly forested, with some of the largest tracts of contiguous forest in Tennessee. Vertical exposed sandstone outcroppings support a unique flora and fauna. This COA is a part of over 300,000 publicly-owned acres that provide outdoor recreation opportunities to an array of user groups. Species of Greatest Conservation Need (GCN) in this area include the Black Mountain Salamander, Green Salamander, Cumberland Dusky Salamander, and Mud Salamander. Two species of endangered bat, the Indiana and Gray Bat, as well as the threatened Northern Long-eared Bat, find both winter and summer habitat in this region.

The Catoosa/Emory River COA boasts some of the largest tracts of contiguous forest in Tennessee, with streams supporting a diversity of aquatic species.

Streams of the Cumberland Plateau were heavily impacted by mining and forestry activities in the early 1900's, but many are recovering. The more pristine among them support a variety of GCN aquatic species, such as the Spot Fin Chub, Ashy Darter, Blackside Dace, Purple Bean Mussel, Alabama Lamp Mussel and even an undescribed species of crayfish that is new to science.

Once the North Cumberlands Forest Resources Habitat Conservation Plan (HCP) is final, TWRA will conduct compliance monitoring and purchase critical units of habitat for imperiled species using HCP land grants. An HCP is approved by the U.S. Fish and Wildlife Service to ensure negative impacts to listed species that arise from nonfederal activities are adequately minimized and mitigated.

Public Lands within the COA

Catoosa Wildlife Management Area (WMA), Cumberland Mountain State Park (SP), Cumberland Trail SP, Frozen Head State Natural Area (SNA) & SP, Grassy Cove Karst Area National Natural Landmark, Keyes-Harrison WMA, Kingston Refuge, Lone Mountain State Forest, Luper Mountain WMA, Mt. Roosevelt WMA, North Cumberland WMA, Obed Wild & Scenic River

Top to bottom: Emory River - Chris M. Morris; Male River Chub carrying stone to its nest - Jeremy Monroe, Freshwaters Illustrated/next page: Mud Salamander - Chris Simpson, TWRA

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Partnerships

TWRA will develop and expand partnerships with the U.S. Army Corps of Engineers, Natural Resources Conservation Service, Tennessee Valley Authority, Tennessee Dept. of Environment and Conservation, The Nature Conservancy, Tennessee Parks and Greenways Foundation, Tennessee Clean Water Network, the Cumberland River Compact, and private land owners.

	Desired Change	Units
+	Increase the application of Best Management Practices to benefit GCN species and habitats on private lands using government funded incentive programs	number
+	Increase forest acres/stream miles of critical habitat by restoring to appropriate ecological system conditions.	acres/miles
+	Decrease acres of habitat negatively affected by undesirable native and exotic plant and animal species.	acres
+	Increase understanding of GCN species' geographical distribution, life history, and ecological needs to improve management aimed at promoting survival over the long-term.	projects
+	Increase acreage of permanently protected habitat to benefit GCN species.	acres
+	Increase and improve the awareness, education, and cooperation of stakeholders/citizens pertaining to GCN species and habitat.	number
−	Decrease the negative effects of development on GCN species and habitats by providing data to planning entities in environmental or land use planning.	plans
+	Restore GCN species populations in key habitat areas where numbers are low through propagation/ translocation.	animals
+	Avoid and mitigate impacts from coal minining, oil & natural gas exploration by participating in environmental reviews.	reviews

To learn more about the Catoosa / Emory River Conservation Opportunity Area, please contact: Chris Simpson, Wildlife Diversity Coordinator, Region 3 (931) 484-9571

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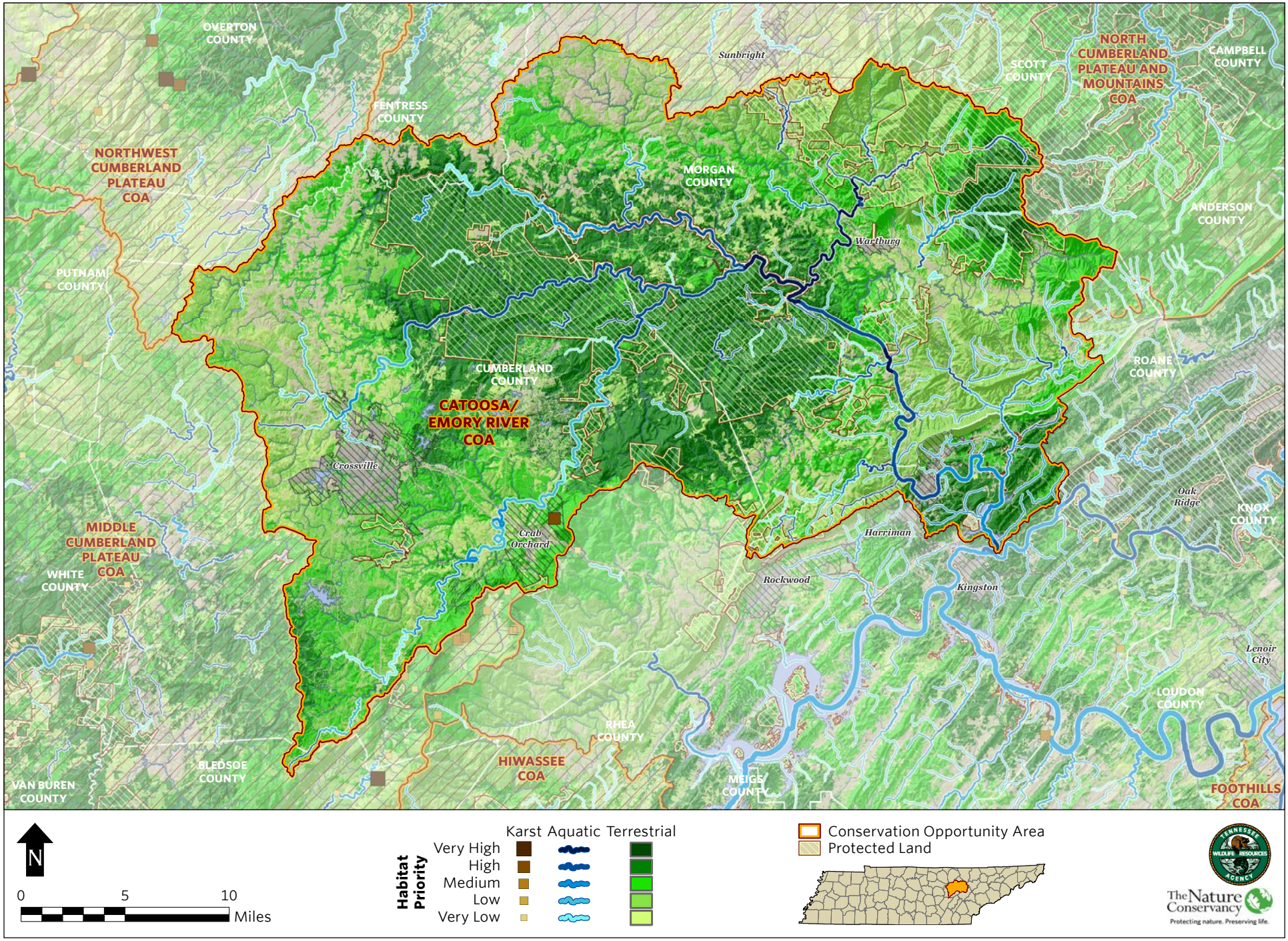

	CATOOSA/EMORY RIVER COA GCN SPECIES (TN)
Taxa Group	**Scientific & Common names**
Amphibian	Aneides aeneus (Green Salamander)
Amphibian	Cryptobranchus alleganiensis (Hellbender)
Amphibian	Desmognathus abditus (Cumberland Dusky Salamander)
Amphibian	Desmognathus welteri (Black Mountain Salamander)
Amphibian	Hemidactylium scutatum (Four-toed Salamander)
Amphibian	Pseudacris brachyphona (Mountain Chorus Frog)
Amphibian	Pseudotriton montanus (Mud Salamander)
Bat	Corynorhinus rafinesquii (Rafinesque's Big-eared Bat)
Bat	Myotis grisescens (Gray Bat)
Bat	Myotis leibii (Eastern Small-footed Bat)
Bat	Myotis lucifugus (Little Brown Bat)
Bat	Myotis septentrionalis (Northern Myotis)
Bat	Myotis sodalis (Indiana Bat)
Bat	Perimyotis subflavus (Tri-colored Bat)
Bird	Accipiter striatus (Sharp-shinned Hawk)
Bird	Ammodramus henslowii (Henslow's Sparrow)
Bird	Ammodramus savannarum (Grasshopper Sparrow)
Bird	Anas rubripes (American Black Duck)
Bird	Aquila chrysaetos (Golden Eagle)
Bird	Asio flammeus (Short-eared Owl)
Bird	Bartramia longicauda (Upland Sandpiper)
Bird	Bonasa umbellus (Ruffed Grouse)
Bird	Calidris himantopus (Stilt Sandpiper)
Bird	Calidris mauri (Western Sandpiper)
Bird	Calidris pusilla (Semipalmated Sandpiper)
Bird	Caprimulgus carolinensis (Chuck-will's-widow)
Bird	Caprimulgus vociferus (Whip-poor-will)
Bird	Cardellina canadensis (Canada Warbler)
Bird	Chaetura pelagica (Chimney Swift)
Bird	Charadrius melodus melodus (Piping Plover)
Bird	Chordeiles minor (Common Nighthawk)
Bird	Circus cyaneus (Northern Harrier)
Bird	Cistothorus platensis (Sedge Wren)
Bird	Colinus virginianus (Northern Bobwhite)
Bird	Empidonax minimus (Least Flycatcher)
Bird	Empidonax traillii (Willow Flycatcher)
Bird	Euphagus carolinus (Rusty Blackbird)
Bird	Falco peregrinus (Peregrine Falcon)
Bird	Geothlypis Formosa (Kentucky Warbler)
Bird	Grus americana (Whooping Crane)
Bird	Haliaeetus leucocephalus (Bald Eagle)
Bird	Helmitheros vermivorum (Worm-eating Warbler)
Bird	Hylocichla mustelina (Wood Thrush)
Bird	Icteria virens (Yellow-breasted Chat)
Bird	Icterus spurius (Orchard Oriole)
Bird	Ictinia mississippiensis (Mississippi Kite)
Bird	Lanius ludovicianus (Loggerhead Shrike)
Bird	Limnothlypis swainsonii (Swainson's Warbler)
Bird	Melanerpes erythrocephalus (Red-headed Woodpecker)
Bird	Nycticorax nycticorax (Black-crowned Night-heron)
Bird	Parkesia motacilla (Louisiana Waterthrush)
Bird	Pluvialis dominica (American Golden Plover)
Bird	Protonotaria citrea (Prothonotary Warbler)

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Taxa Group	**Scientific & Common names**
Bird	Riparia riparia (Bank Swallow)
Bird	Scolopax minor (American Woodcock)
Bird	Setophaga caerulescens (Black-throated Blue Warbler)
Bird	Setophaga cerulea (Cerulean Warbler)
Bird	Setophaga discolor (Prairie Warbler)
Bird	Setophaga dominica (Yellow-throated Warbler)
Bird	Setophaga fusca (Blackburnian Warbler)
Bird	Sitta pusilla (Brown-headed Nuthatch)
Bird	Sturnella magna (Eastern Meadowlark)
Bird	Tryngites subruficollis (Buff-breasted Sandpiper)
Bird	Tyto alba (Barn Owl)
Bird	Vermivora chrysoptera (Golden-winged Warbler)
Bird	Vermivora cyanoptera (Blue-winged Warbler)
Bivalve	Lampsilis virescens (Alabama Lampmussel)
Bivalve	Medionidus conradicus (Cumberland Moccasinshell)
Bivalve	Pleurobema oviforme (Tennessee Clubshell)
Bivalve	Pleuronaia barnesiana (Tennessee Pigtoe)
Bivalve	Villosa iris (Rainbow)
Bivalve	Villosa perpurpurea (Purple Bean)
Crustacean	Cambarus crinipes (Hairyfoot Crayfish)
Crustacean	Cambarus deweesae (Valley Flame Crayfish)
Crustacean	Cambarus obeyensis (Obey Crayfish)
Crustacean	Cambarus sp. 1 (Emory River Crayfish)
Crustacean	Cambarus sp? (Obed Crayfish)
Fish	Acipenser fulvescens (Lake Sturgeon)
Fish	Chrosomus tennesseensis (Tennessee Dace)
Fish	Erimonax monachus (Spotfin Chub)
Fish	Etheostoma cinereum (Ashy Darter)
Fish	Etheostoma vulneratum (Wounded Darter)
Fish	Notropis rubellus (Rosyface Shiner)
Fish	Percina aurantiaca (Tangerine Darter)
Fish	Percina squamata (Olive Darter)
Fish	Percina williamsi (Sickle Darter)
Gastropod	Stenotrema edgarianum (Sequatchie Slitmouth)
Mammal	Martes pennanti (Fisher)
Mammal	Mustela nivalis (Least Weasel)
Mammal	Neotoma magister (Allegheny Woodrat)
Mammal	Ochrotomys nuttalli (Golden Mouse)
Mammal	Parascalops breweri (Hairy-tailed Mole)
Mammal	Sorex cinereus (Cinereus Shrew)
Mammal	Sorex fumeus (Smoky Shrew)
Mammal	Sorex longirostris (Southeastern Shrew)
Mammal	Spilogale putorius (Eastern Spotted Skunk)
Plant	Adlumia fungosa (Climbing Fumitory)
Plant	Amelanchier sanguinea (Roundleaf Shadbush)
Plant	Aureolaria patula (Spreading False-foxglove)
Plant	Cimicifuga rubifolia (Appalachian Bugbane)
Plant	Draba ramosissima (Branching Whitlow-grass)
Plant	Juglans cinerea (Butternut)
Plant	Leucothoe racemosa (Fetter-bush)
Plant	Lilium canadense (Canada Lily)
Plant	Panax quinquefolius (American Ginseng)
Plant	Potamogeton amplifolius (Large-leaf Pondweed)

	CATOOSA/EMORY RIVER COA GCN SPECIES (TN)
Taxa Group	**Scientific & Common names**
Plant	Potamogeton tennesseensis (Tennessee Pondweed)
Plant	Spiraea virginiana (Virginia Spiraea)
Plant	Trillium pusillum (Least Trillium)
Reptile	Crotalus horridus (Timber Rattlesnake)
Reptile	Heterodon platirhinos (Eastern Hognosed Snake)
Reptile	Ophisaurus attenuatus longicaudus (Eastern Slender Glass Lizard)
Reptile	Pituophis melanoleucus melanoleucus (Northern Pinesnake)
Reptile	Terrapene carolina (Eastern Box Turtle)
Subterranean - Arachnid	Hesperochernes mirabilis (Southeastern Cave Pseudoscorpion)
Subterranean - Arachnid	Kleptochthonius infernalis ((a cave obligate pseudoscorpion))
Subterranean - Crustacean	Caecidotea circulus ((a cave obligate isopod))
Subterranean - Crustacean	Caecidotea nickajackensis (Nickajack Cave Isopod)
Subterranean - Crustacean	Caecidotea scyphus ((a cave obligate isopod))
Subterranean - Crustacean	Cambarus hamulatus (Prickly Cave Crayfish)
Subterranean - Crustacean	Cambarus tenebrosus (Cavespring Crayfish)
Subterranean - Crustacean	Crangonyx antennatus (Appalachian cave amphipod)
Subterranean - Crustacean	Stygobromus exilis (Central Kentucky Cave Obligate)
Subterranean - Crustacean	Stygobromus sp. 22 (Swamp River Cave Amphipod)
Subterranean - Flatworm	Sphalloplana percoeca ((a cave obligate planarian))
Subterranean - Gastropod	Helicodiscus barri (Raccoon Coil)
Subterranean - Insect	Arrhopalites sp. 2 near bimus ((undescribed cave springtail))
Subterranean - Insect	Euhadenoecus puteaus (cave cricket)
Subterranean - Insect	Hadenoecini sp. (cave crickets)
Subterranean - Insect	Lesteva pallipes (rove beetle)
Subterranean - Insect	Litocampa cookei (Cooke's Cave Dipluran)
Subterranean - Insect	Megaselia cavernicola (cave hump-backed fly)
Subterranean - Insect	Pseudanophthalmus jonesi (Grassy Cove Cave Beetle)
Subterranean - Insect	Pseudanophthalmus sp. (Baker cave beetle)
Subterranean - Insect	Pseudosinella pecki (Peck's cave springtail)
Subterranean - Insect	Spelobia tenebrarum (Cave dung fly)
Subterranean - Insect	Tomocerus bidentatus (Two-toothed springtail)
Subterranean - Millipede	Pseudotremia sp. 10 (Baker cave milliped)

CATOOSA/EMORY RIVER COA HABITATS (TN)	
Terrestrial Habitat Type	**Total acres of very high, high, and medium ranked habitat**
Natural habitats	
Allegheny-Cumberland Dry Oak Forest and Woodland	166294
South-Central Interior Mesophytic Forest	50608
Appalachian (Hemlock)-Northern Hardwood Forest	49130
Southern Appalachian Low-Elevation Pine Forest	29421
South-Central Interior Small Stream and Riparian	6681
Southern and Central Appalachian Cove Forest	5096
Southern Ridge and Valley / Cumberland Dry Calcareous Forest	4903
South-Central Interior Large Floodplain	97
Cumberland Acidic Cliff and Rockhouse	34
Southern Appalachian Montane Pine Forest and Woodland	11
Semi-natural habitats	
Old Field / Successional	15565
Pasture	7733
Cropland	117
Aquatic Habitat Type	**Total stream miles of very high, high, and medium ranked habitat**
Headwaters and Streams	147
Small River	61
Medium River	32